

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

COMPLETE LISTING OF CLAIMS:

Claims 1-24 : (Canceled)

Claim 24 : (New) A telecommunications network, comprising:

- a) a plurality of network elements;
- b) switching means;
- c) a traffic stream controller;
- d) for each network element, there is provided a set of outgoing paths

from the network element to the switching means, one of the outgoing paths carrying traffic streams for each of the network elements, and an incoming path carrying traffic streams from the switching means to the network element; and

e) to route traffic streams from each of the network elements to the network element, the switching means merges each outgoing path carrying traffic streams for the network element onto the incoming path of the network element, and routing of the traffic streams to the network element is controlled by the network element using the traffic stream controller.

Claim 25 : (New) The telecommunications network according to claim 24, in which each outgoing path comprises a permanent virtual path (PVP).

Claim 26 : (New) The telecommunications network according to claim 24, in which each incoming path comprises a permanent virtual path (PVP).

Claim 27 : (New) The telecommunications network according to claim 24, in which, for each network element, control of routing of the traffic streams to the network element comprises control of usage of bandwidth of the incoming path of the network element.

Claim 28 : (New) The telecommunications network according to claim 27, in which each network element controls usage of the incoming path bandwidth by using information received from the traffic stream controller.

Claim 29 : (New) The telecommunications network according to claim 28, in which the information received from the traffic stream controller comprises information concerning each of the traffic streams which the network element is to receive.

Claim 30 : (New) The telecommunications network according to claim 28, in which the information received from the traffic stream controller comprises information concerning bandwidth of each of the traffic streams which the network element is to receive.

Claim 31 : (New) The telecommunications network according to claim 30, in which each network element uses the information received from the traffic stream controller to calculate the aggregate bandwidth of any traffic streams being carried on the incoming path of the network element and each of the traffic streams which it is to receive.

Claim 32 : (New) The telecommunications network according to claim 31, in which each network element checks that the aggregate bandwidth does not exceed the incoming path bandwidth of the network element.

Claim 33 : (New) The telecommunications network according to claim 32, in which each network element rejects at least one of the traffic streams which it is to receive, if the aggregate bandwidth exceeds the incoming path bandwidth.

Claim 34 : (New) The telecommunications network according to claim 33, in which, for each network element, the incoming path bandwidth is less than or equal to the bandwidth of an egress port of the switching means from which the incoming path comes.

Claim 35 : (New) The telecommunications network according to claim 34, in which, for each network element, each outgoing path has a bandwidth less than or equal to the bandwidth of the network element incoming path onto which the outgoing path is merged.

Claim 36 : (New) The telecommunications network according to claim 35, in which, for each network element, control of routing of the traffic streams to the network element from each of the network elements comprises the network elements exchanging network element identities via the traffic stream controller.

Claim 37 : (New) The telecommunications network according to claim 24, in which, for each network element, control of routing of the traffic streams to the network element comprises setting up a virtual connection (VC) for each traffic stream, within an outgoing path carrying the traffic stream and the incoming path of the network element.

Claim 38 : (New) The telecommunications network according to claim 37, in which setting up each VC comprises allocating a VC identifier (VCI) to each VC.

Claim 39 : (New) The telecommunications network according to claim 38, in which allocating a VCI to each VC comprises the network element choosing a VCI for each VC.

Claim 40 : (New) The telecommunications network according to claim 39, in which allocating a VCI to each VC comprises the network element communicating a chosen VCI to each of the network elements of the telecommunications network.

Claim 41 : (New) The telecommunications network according to claim 40, in which communicating a chosen VCI is achieved via the traffic stream controller.

Claim 42 : (New) The telecommunications network according to claim 41, in which, for each network element, setting up a VC for a traffic stream comprises the following steps: the traffic stream controller informs the network element that a traffic stream is to be sent to it from a source network element; the network element chooses a VCI for a VC for the traffic stream; the network element communicates the chosen VCI to the traffic stream controller; the traffic stream controller communicates the chosen VCI to the source network element; and the source network element assigns the traffic stream to a VC having the VCI.

Claim 43 : (New) The telecommunications network according to claim 24, in which the telecommunications network routes CBR traffic streams.

Claim 44 : (New) The telecommunications network according to claim 24, in which the switching means comprises at least one switch of the telecommunications network.

Claim 45 : (New) The telecommunications network according to claim 24, in which, for each network element, the outgoing paths carrying traffic streams for the network element are merged in at least one stage using at least one switch of the switching means.